

- 17 -

Claims

1. A container comprising a bowl and a lid for closing the bowl, said bowl and said lid each having a periphery, said peripheries being arranged to be non-releasably interconnected, and said lid or said bowl having a frangible boundary region adjacent to its periphery, whereby at least a major portion of the lid can be detached from the periphery of the container to open the container.
2. A container as claimed in Claim 1, wherein the periphery of the bowl and the lid are arranged to co-operate in such a manner that the lid can be engaged as a non-release snap-fit with the bowl.
3. A container as claimed in either of the preceding claims, wherein said frangible boundary region is provided on said lid, such that a major portion of the lid can be detached from the periphery of the lid to open the container leaving the periphery of the lid attached to the periphery of the bowl.
4. A container as claimed in any of the preceding Claims, wherein the lid is shaped, inwardly of said frangible boundary region, to engage the inner surface of the bowl to define a peripheral seal between the lid and the bowl.
5. A container as claimed in Claim 4, wherein the lid engages as a push-fit within the bowl to provide said peripheral seal between the lid and the bowl.

- 18 -

6. A container as claimed in Claim 4, wherein said frangible boundary region is disposed on a raised periphery of the lid, between said peripheral seal and a peripheral wall of the lid, said peripheral wall of the lid encompassing the periphery of the bowl.
7. A container as claimed in any of Claims 4 to 6, wherein said frangible boundary region is disposed on a raised periphery of the lid, between said peripheral seal and a peripheral wall of the lid, said peripheral wall of the lid encompassing the periphery of the bowl.
8. A container as claimed in any of the preceding claims, wherein said frangible boundary region extends completely around the lid so that a centre, main, portion of the lid can be removed by fracturing the boundary region, leaving the periphery of the lid in place on the bowl.
9. A container as claimed in Claims 1 to 7, wherein said frangible boundary region extends around substantially the whole of, but not the entire, periphery of the lid so as to leave a non-frangible region which acts as a retaining tab holding the centre, main portion of the lid to the periphery of the lid when the lid has been opened along the frangible boundary region.
10. A container as claimed in any of the any of the preceding claims, wherein the frangibility of said boundary region is provided by perforating the boundary region.
11. A container as claimed in any of the preceding claims, wherein the frangible boundary region is formed from a material which can relatively easily be torn.

- 19 -

12. A container as claimed in Claim 11, wherein the boundary region is formed from High Impact Polystyrene.

13. A container as claimed in Claim 11, wherein the frangible boundary region is formed from Oriented Polystyrene (OPS).

14. A container as claimed in any of the preceding claims, wherein the frangibility of the boundary region is provided by a plurality of perforations completely through the material, along the line of said boundary region, and extending completely through the material thickness, the perforations being spaced apart by regions of the material of full thickness.

15. A container as claimed in any of Claims 1 to 10, wherein the boundary region is formed from a material which is difficult to tear.

16. A container as claimed in Claim 15, wherein the boundary region is formed from Amorphous Polyethyleneterephthalate (APET).

17. A container as claimed in any of the preceding claims, wherein the frangibility of the boundary region is provided by reducing the thickness of the material throughout said boundary region, and perforating the reduced thickness so that the boundary region is defined by a plurality of perforations completely through the material, along the line of the boundary region, spaced apart by regions of the material of reduced thickness.

- 20 -

18. A container as claimed in any of the preceding claims is formed with a gripping formation, which the lid is moved upwardly relatively to the bowl to initiate detachment of the lid material along the frangible boundary region.

19. A method of producing a frangible boundary region in a container, said method comprising supporting that region of the container material which is to contain the frangible boundary on an anvil, said anvil having a top surface formed with a plurality of spaced recesses, and cutting said material by means of a blade having a planar edge parallel to the plane of the top surface of said anvil so that the blade cuts through the material completely where the material is supported on the anvil, and the material aligned with said recesses is flexed into said recesses by the blade, the depth of said recesses below the top surface of the anvil being less than the thickness of the material so that the material above said recesses is cut into and so thinned, but is not cut completely through, by said blade.

20. A method of producing a frangible boundary region in a container as claimed in Claim 19, wherein said blade has a stop member associated therewith, the stop member having a lower face parallel to the upper face of the anvil, and spaced from the cutting edge of the blade by the thickness of the container material to be cut, said stop member engaging the upper surface of the material during cutting so that penetration of the blade through the material is limited to the thickness of the material so that there is substantially no impact of the cutting edge of the blade on the top face of the anvil.

- 21 -

21. A method of manufacturing a container from sheet material and subsequently forming a frangible boundary region therein as claimed in claim 20 or claim 21.
22. Apparatus for use in the manufacture of a container having a frangible boundary, comprising, an anvil for supporting that region of the container material which is to contain the frangible boundary, said anvil having a top surface formed with a plurality of spaced recesses, and a blade for cutting said material said blade having a planar edge parallel to the plane of the top surface of said anvil so that the blade when brought towards the anvil cuts through the material completely where the material is supported on the anvil, and the material aligned with said recesses is flexed into said recesses by the blade, the depth of said recesses below the top surface of the anvil being less than the thickness of the material so that the material above said recesses is cut into and so thinned, but is not cut completely through, by said blade.
23. An apparatus as claimed in Claim 19, wherein said blade has a stop member associated therewith, the stop member having a lower face parallel to the upper face of the anvil, and spaced from the cutting edge of the blade by the thickness of the container material to be cut, said stop member engaging the upper surface of the material during cutting so that penetration of the blade through the material is limited to the thickness of the material so that there is substantially no impact of the cutting edge of the blade on the top face of the anvil.